

## **Impact of pre-sowing treatment on seed germination and seedlings growth attributes of *Calamus longisetus* Griff. at nursery and field conditions**

### **ABSTRACT**

The paper describes the germination behaviour of *Calamus longisetus* Griff. seeds under three different pre-sowing treatments and seedlings growth performance in nursery and field condition. Whole fruits, seeds with pulp and cleaned seeds were sown in germination trays filled with soils mixed with decomposed cowdung at a ratio of 3:1. The growth performance of the seedlings were determined by transferring the young seedlings (having 2 ó 3 leaves) from germination bed to the polybags filled with soil mix followed by outplanting (at 1-year old) in the field. Germination percentage was significantly ( $p < 0.001$ ) enhanced by the pre-sowing treatment where the highest germination percentage was in cleaned seeds followed by the seeds with pulp and lowest in whole fruits. The survival percentage was over 91% in the field after one year and the average height 126.2 cm after two years of planting. Clean seeds for nursery raising and one-year old seedlings for outplanting were found suitable for raising successful plantations for the species.

**Keyword:** *Calamus longisetus*; Cleaned seeds; Germination potential; Pre-sowing treatment; Seedling growth; Survival percentage